United States Department of Agriculture

Research, Education, and Economics
Agricultural Research Service

June 19, 2003

SUBJECT: Guidance for Research Project Annual Reports (AD-421) for Fiscal Year 2003 (October 1, 2002, to September 30, 2003)

TO: Area Directors
Center Directors
Institute Directors
Laboratory Directors
Research Leaders

FROM: Dwayne R. Buxton /s/
Deputy Administrator

REPORTS ARE DUE TO THE NATIONAL PROGRAM STAFF NO LATER THAN OCTOBER 1, 2003 – AREA OFFICES WILL ESTABLISH EARLIER DEADLINES FOR THEIR REVIEW PROCESS

This memorandum begins the process of preparing and clearing the annual project reports (AD-421) that are required for each research project and provides guidance to help you prepare the next round of reports covering the accomplishments achieved in FY 2003. We continue to receive some reports that are not written concisely in the format described herein. The result is that much good work is not featured in reports extracted from the AD-421. **You should read these instructions carefully before preparing your reports.**

To see some ways the National Program Staff (NPS) uses the information provided in the AD-421s, go to the NPS Home Page (http://www.nps.ars.usda.gov) and select one of the National Programs. At the left of each National Program (NP) statement is a link to the National Program Annual Reports (NPARs) for FY 1998, 1999, 2000, 2001, and 2002. In addition to the summary report, each AD-421 report associated with that National Program is also available. The NPS Home Page also includes the ARS Annual Performance Reports (APR). The APRs contain a large number of accomplishments organized around the goals in the ARS Strategic Plan, as required by the Government Performance and Results Act (GPRA) of 1993. The most recent "green sheets" section from the FY 2004 budget document is available on the NPS internal web site at http://www.npstaff.ars.usda.gov/progstatus. It is not currently a public document.

Specific guidance follows on how to address each question of the AD-421, noting any changes from previous years, followed by some general comments that may be helpful to you in understanding how this report will be used. Remember, the AD-421 is not a technical document, and it should be written to be understood by our customers, stakeholders, and interested members of the general public. Avoid the use of "technical jargon." Please review this memorandum carefully and follow the guidance provided.

Annual Reports for Subordinate CRIS Projects:

The question of how to handle the subordinate research projects has been a significant issue over the years. Departmental requirements and systems and database restrictions make it necessary for us to gather annual reports for the non-"D" research projects (e.g., specific cooperative agreements (S), grants (G), trusts (T), and reimbursable agreements (R)). This year, the procedures are similar to the ones instituted for the past 2 years.

For all subordinate projects with the exception of the attached list (Appendix A), only Question 4D (Progress Report) is now required. All of the other questions are optional, not mandatory. In Question 4D, a progress report of the project's activities over the last year will be sufficient. A reference to the associated in-house parent project **must** be included. While the length of Question 4D is unlimited for subordinate projects, the report should be concise.

In compiling the projects listed in Appendix A, we followed the same criteria used during the last two years. The list includes all non-"D" projects receiving over $400,000 a year from ARS and those specifically identified by NPS or the Area Directors as being likely to have significant research accomplishments to report.

The progress report for these subordinate projects should begin by stating who the project is with (the outside organization) and what in-house project it is associated with, including project number and project title (Example: "This report serves to document research conducted under a reimbursable agreement between ARS and the U.S. Fish and Wildlife Service. Additional details of research can be found in the report for the parent project 6225-12320-001-00D Soil Erosion Research"). Please provide sufficient information to allow NPS and the Area Offices to evaluate the progress of the programmatic activities reported. *In addition, in the text of the response, it should be stated how the project relates to the objectives of the related in-house project.*

Major accomplishments of the subordinate research projects (accomplishments at the level where they are candidates for inclusion in the National Program Annual Report, budget documents, and/or GPRA reports) **should be captured and reported in the parent research project's AD-421, with credit as appropriate.**

4 Enclosures:
Attachment 1 (Guidance on Nine Questions)
Attachment 2 (Publication Information)
Attachment 3 (General Comments)
Appendix A

cc: w/encl.
National Program Leaders, NPS
Program Analysts, NPS
D. Rust, NPS

Attachment 1

Guidance for Completing the Nine Questions in the AD-421

RLs are asked to carefully adhere to the following instructions. Some information is requested each year to assist non-ARS researchers and our customers and stakeholders, who may have difficulty retrieving prior year reports. **In questions 1, 2, and 3, where there should be little change from year to year during the life of a research project, simply copy the information from the previous report and edit/update it accordingly. Please be concise and avoid repeating the same information when responding to different questions. The following provides guidance for each fo the nine questions.**

1. What major problem or issue is being resolved and how are you resolving it?

- Provide a concise overview of the problems and objectives being addressed and the approaches your research project is using to resolve them. This information should be consistent with your project plan *and the National Program Action Plan.*
- Once developed, the answer to this question can be used each year during the life of the research project with only minor editing, if needed.

2. How serious is the problem? Why does it matter?

- To whom is the work relevant/what is the potential impact of the work?
- Once developed, the answer to this question can be used each year during the life of the research project with only minor editing, if needed.

3. How does it relate to the National Program(s) and National Program Component(s) to which it has been assigned?

- In one or two sentences, describe how your work supports each National Program and its components with which you are formally aligned. If your research contributes to National Programs other than the ones it is specifically coded to support, provide a brief description of the significant interactions.
- Identify, and very briefly describe the other projects, both ARS projects and extramural cooperatives, that you are working collaboratively with to achieve the objectives described in the National Program Action Plan.
- Once developed, the answer to this question can be used each year during the life of the research project, updating as necessary.

4. What were the most significant accomplishments this past year?

A. Single Most Significant Accomplishment during FY 2003 ***(one per Research Project):***

- **Follow this format - each accomplishment should be written in a four-sentence paragraph, with ONE SENTENCE ADDRESSING EACH OF THE FOLLOWING in this order:**
- **WHY DID YOU DO THE RESEARCH?**
- **WHAT WAS DONE AND WHERE (INCLUDE THE NAME OF YOUR LABORATORY AND THE NAMES OF THE COLLABORATORS/ COOPERATORS, IF ANY)?**

- **SPECIFIC ACCOMPLISHMENT IN THE REPORTING PERIOD (FY 2003)**
- **WHAT WAS (OR COULD BE) ITS IMPACT, OUTCOME, ETC.?**
- THIS FORMAT IS REQUIRED IN PREPARING BUDGETARY DOCUMENTS JUSTIFYING OUR REQUESTS FOR APPROPRIATIONS.
- **It is in your interest to have your project's accomplishments recognized and used in a timely manner. Do not rely on the National Program Teams' familiarity with your work to assure proper recognition. Well-written, concise statements will increase the likelihood of recognition.**
- For "new" or "bridging/interim" research projects, briefly capture the work and accomplishments of the previous research, thus providing a sense of history and continuity unless that work is included in another (close-out) AD-421. If the work is truly new and does not build on an earlier project or if the work has been redirected into new areas, **a brief explanation can be inserted here and expanded in 4D Progress Report.**

B. Other Significant Accomplishment(s), if any.
- If you have additional significant accomplishments that you want to report, follow the **format described in 4A**.

C. Significant Activities that Support Special Target Populations.
- **Only** if you have specific activities or special outreach efforts that directly benefit the target populations (small farms--defined as under $250,000 annual gross receipts--or "socially disadvantaged/limited resource/historically under-served" producers), briefly report them here in no more that 10 lines of text.
- If there are no accomplishments to report here, simply state "none."

D. Progress Report **(OPTIONAL FOR ALL IN-HOUSE ("D") PROJECTS AND THE PROJECTS LISTED IN APPENDIX A; MANDATORY FOR ALL OTHER SUBORDINATE PROJECTS)**
- **For in-house ("D") projects:** If you have reached significant milestones, or have other important information to share with the National Program Team and the public, briefly describe the progress here. Remember the progress you report is progress you achieved in FY 2003. Many accomplishments take more than one year to complete. **FORMAT: Succinct header followed by no more than 10 lines of text.**
- **For Subordinate Projects:** Give a brief report of progress for the reporting year. No limit has been designated; however, brief concise reporting should be the goal. As noted earlier, the summary should begin by stating who the project is with (the outside organization) and what in-house project it is associated with (Example: "This report serves to document research conducted under a reimbursable agreement between ARS and the U.S. Fish and Wildlife Service. Additional details of research can be found in the report for the parent CRIS 6225-12320-001-00D Soil Erosion Research.").

- Also, to repeat, major accomplishments of the subordinate research projects (accomplishments at the level where they are candidates for inclusion in the National Program Annual Report, budget documents, and/or GPRA reports) should be captured and reported in the parent (related in-house) research project's AD-421, with credit as appropriate (e.g., cite work of cooperator).

5. Describe the major accomplishments over the life of the project, including their predicted or actual impact.

- The "life of the project" refers to the duration of the current research project.
- For "new" or bridging/interim" research projects, briefly capture the work and accomplishments of the previous project, thus providing a sense of history and continuity. If the work is truly new and does not build on an earlier project or if the work has been redirected into new areas, a brief explanation can be inserted here.
- Once developed, much of the answer to this question can be used each year during the life of the research project, with updating to include recent accomplishments.
- Link accomplishments to the milestones in your Project Plan *and the National Program Action Plan(s).*
- As we approach the fourth year of the National Program cycle, the National Program Staff will rely on the information in Question 5 to assess the overall progress of each National Program in preparation for the next National Program workshop.
- Do not include accomplishments described in Question 4.

6. What do you expect to accomplish, year by year, over the next 3 years?

- The Government Performance and Results Act (GPRA) requires ARS to submit an Annual Performance Plan (APP) each year with its budget request. The APP lays out a number of significant accomplishments/outcomes which the Agency expects to achieve with the funds requested. The APP looks ahead for 3 years. The National Program Teams will review the anticipated accomplishments identified in the AD-421s and select the ones that will be used in the APP. **We are asking you to identify anticipated accomplishments for each of the next three fiscal years.** Not every project will have a significant accomplishment every year, and NPS recognizes the difficulty of predicting future research outcomes, but if you are able to do so, it will assist NPS in developing the GPRA APP. (See http://www.nps.ars.usda.gov).
- If the projected accomplishments you reported last year or the year before need to be updated, revise them and include a brief explanation of why the change(s) was necessary.
- The projected accomplishments should be consistent with the milestones in your Project Plan *and the National Program Action Plan(s).*

7. What science and/or technologies have been transferred and to whom? When is the science and/or technology likely to become available to the end-user (industry, farmer, other scientists)? What are the constraints, if known, to the adoption and durability of the technology products?

- What knowledge, cultural practices, technologies, etc., have been transferred to potential users during FY 2003? **Do not list activities or publications, but identify more tangible accomplishments such as CRADAs, licenses, patents, field days, and other formal steps that have been taken to put information in the hands of users. Do not include the names of individuals or corporations** to whom you have transferred technology; identify them more generically (producers, other scientists, consumer organizations, processors, shippers, etc.).
- Do not list publications in this section.
- See the guidance regarding Intellectual Property Rights under the section entitled "General Comments" later in this memorandum.

8. List your most important publications in the popular press and presentations to organizations and articles written about your work (NOTE: This does not replace your peer-reviewed publications listed in Question 9).

- Enter only non-peer-reviewed publications. The peer-reviewed publications in scientific journals and major presentations to scientific or professional organizations should be entered under Question 9.
- Enter items in this section only once, in the year they were published or presented.
- While we have lifted the limit of three publications you can enter in this section, we expect you to be selective and only identify the most important items.
- *For subordinate projects, publications without ARS authors may be listed here.*

9. Scientific Publications:

- Enter peer-reviewed publications and major presentations (abstracts) to scientific and professional organizations in this section that have an approved ARS-115 Manuscript Approval.
- **Only enter those publications that have been printed and have not been included in previous annual reports. Do not list articles that are "in press."**

Attachment 2

Publication Information

We use the standard citation format for journal articles which is as follows: The citation must include the following information in the same sequential order:

- Author(s) [Surname, First Initial, Middle Initial]. All authors should be listed in order of authorship.
- Title [Full article title, including punctuation.]
- Journal title [Full journal title.]
- Chronology [Date of journal issue. May include year only; or year, month and day.]
- Enumeration [Give volume and issue in format v. 10(5) where 10 is the volume number and 5 is the issue number.]
- Pagination [Give the beginning and ending pages, preceded by "p."]

- Spacing: One space between all elements.
- There is no length limitation for publication citations.
- There should be a period at the end of each publication citation.
- For publications with multiple authors, no "and" should be included before the last author.

There must be an approved "ARS-115 Manuscript Approval" for every publication. This is mandatory when the AD-421 is entered in ARIS for FY 2003:

- The citation information will propagate into the AD-421 when the ARS-115 log number is chosen. For FY 2003, the citation information will be modifiable within the 421 due to the late implementation of the new citation field on the 115. However, in FY 2004 this field will not be modifiable. Any changes in the citation field for FY 2004 will need to be made via modifying the citation through the 115.

Do not list any publication(s) other than the current fiscal year. If reporting for fiscal year 2003, do not list any publications with an October 2003 date or later.

- Prior year publication(s) may be listed in this fiscal year's reporting time frame only if they were not listed in a prior reporting cycle.
- Publication citations must use the full journal title. Journal abbreviations are no longer acceptable.

Examples of Citations:

Multiple Author Journal Article:

Schisler, D.A., Kurtzman, C.P., Bothast, R.J., Slininger, P.J. Evaluation of yeasts for biological control of Fusarium dry rot of potatoes. American Potato Journal. 1995. v. 72. p. 339-353.

Pratt, R.C., Anderson, R.J., Louie, R., McMullen, M.D., Knoke, J.K. Maize responses to a severe isolate of maize chlorotic dwarf virus. Crop Science. 1994. v. 34. p. 635-641.

Single Author Journal Article:

Anderson, R.J. Maize responses to a severe isolate of maize chlorotic dwarf virus. Crop Science. 1994. v. 55. p. 640-649.

Abstract: (citation requires a page number - **Use "paper number" only if page number is not assigned.**

Hester, P.Y., Muir, W.M., Craig, J.V., Albright, J.L. Group selection for adaptation to multiple-hen cages: Response to social and heat stress. Poultry Science. 1995. v. 74(Suppl.1): Abstract p. 102.

Steinheimer, T.R. Chemical fate of herbicides within a small agricultural watershed. American Chemical Society. 1995. Abstract p. 225-226.

Paarlberg, K.R., Hanna, H.M., Erbach, D.C., Hartzler, R.G. Cultivator design for interrow weed control on no-till corn. 1995. American Society for Agricultural Engineers. Paper No. 95-1331.

Dintzis, F.R., Berhow, M.A., Bagley, E.B., Wu, Y.V., Felker, F.C. Dilatant flow behavior and structure formation in gently solubilized starches. Cereal Foods World. 1995. v. 40(9). p. 644. Abstract No. 47.

Thesis/Dissertation:

Dorsey, J.D. Farming system effects on soil properties. Ph.D. Dissertation. 1995. The Ohio State University. 340 p.

Milach, S.C.K. Genetic characterization and molecular mapping of dwarfing genes in oat. Ph.D. Thesis. 1995. University of Minnesota. 94 p.

Proceedings:

Kanwar, R.S., Colvin, T.S., Karlen, D.L. Tillage and crop rotation effects on drainage water quality. Proceedings of Clean Water-Clean Environment 21st Century. 1995. v. III. p. 163-166.

Miller, J.G. Jaynes, D.B., Moorman, T.B. Prediction of atrazine persistence in a central Iowa field. Proceedings of Water Quality Modeling International Symposium. 1995. p. 109-118.

Book Chapter:

Ogren, W.L. Energy utilization by photorespiration. Tolbert, N.E., Preiss, J., editors. Oxford University Press, New York, NY. Regulation of Atmospheric CO2 and O2 by Photosynthetic Carbon Metabolism. 1994. p. 115-125.

Payne, K.M., King, J.W. Supercritical fluid extraction/chromatography. Olson, W.P. editor. Buffalo Grove, IL: Interpharm Press, Inc.; Chapter 4. 1995. p. 195-230 Separations Technology.

Patent:

Eller, F.J., Bartelt, R.J. Compositions for the control of pepper weevils. 1995. U.S. Patent 5,393,522.

Shasha, B.S., McGuire, M.R. Sprayable gluten-based formulation for pest control. 1995. U.S. Patent Application S/N 08/353,918.

Internet or World Wide Web (WWW):

Yerk-Davis, G.L., Grant, D., McMullen, M.D., Coe, E.H., Houchins, K., Melia-Handcock, S. The UMC Maize RFLP Map Sequence. Available from: http://probe.nalusda.gov:8000/plant/index.html Plant Genome IV Abstracts [1995]

CD ROM:

Gallo, A.E. The food marketing system in 1996. CD-ROM. Washington, D.C.: U.S. Department of Agriculture, ERS.

The Carman Lake Project. CD-ROM. Indianapolis, IN: EcoLogik. 2000.

Attachment 3

General Comments

- **Who is the intended audience?** The AD-421 is not a technical document, and it should be written to be understood by our customers, stakeholders, and interested members of the general public. **Avoid the use of "technical jargon."**

- **What is an accomplishment?** The term **"accomplishment"** means **"something successfully completed."** For the purpose of completing the AD-421, we are not looking for a list of activities, a progress report, or proposed plans. By the very nature of scientific discovery, we do not expect every project to have a significant accomplishment every year. From this year's experience, NPS selected about **10-15 percent** of the identified accomplishments for inclusion in various annual reports.

- **What is the proper length?** The length of the AD-421 is not, in itself, an issue. When we revised the format and lifted the 42-line limitation, we expected to receive a more detailed and useful report. However, some of the project reports were too long relative to their content while others were too short. While we are not reimposing length limitations, unnecessarily long project reports defeat the purpose of this process, and the drafters need to use reasonable self-regulation in deciding how much information and detail to include in the report.

- **How do we Protect Intellectual Property Rights (IPR)?** We are aware of the problem of protecting intellectual property rights in a public reporting process such as this one. But, an AD-421 that basically says we cannot tell you anything about our work because it might jeopardize an intellectual property right is not acceptable. **If the scientist believes he/she has made a patentable invention or may have a future patentable invention, they must consult with their patent advisor to review the written description of their research results to avoid making a disclosure. In this regard, the scientist should be particularly diligent about consulting with his/her patent advisor when responding to Questions 4-6. Predictive statements made in the AD-421 or elsewhere can negate future patent rights.** The Agency needs to know, and the public has a right to know, what you are doing with the funds made available to you. With careful drafting, you can provide a meaningful annual report without disclosing IPRs. If you withhold an accomplishment to protect IPRs, make sure to report that accomplishment in the first project report after the patent application has been filed by ARS at the U.S. Patent and Trademark Office.

- **Progress reports from CRADAs and other extramural Agreements (Questions 4D, 5, 6) may be subject to special Confidentiality clauses.** Because CRADAs may offer cooperators special rights to review draft public disclosures of research conducted under the CRADA, and because cooperators may consider this to be confidential business information, make sure that any report related to your CRADAs (or Trust Fund Agreements) is cleared by the cooperator before it is submitted to the Area Office. Contact your Patent Advisor or Technology Transfer Coordinator, if you have questions on CRADA reports.

- **Use caution when including "sensitive" information.** There is guidance already in the field (revised February 2002), regarding the publication, review, and clearance of "sensitive" information. Whenever possible, avoid discussing potentially sensitive information, such as strategies for resolving international trade disagreements, recommendations of specific agro-chemicals, or not yet fully developed approaches for solving some potentially controversial issues. If "sensitive" information is included in the AD-421, alert the Area Office for a special review.

- ***Use caution when describing work with Select Agents, hazardous chemicals, radioisotopes, or sensitive laboratory techniques/procedures.*** Generally, reports for the AD-421 are written in lay terms and critical details that might be used in weapons of mass destruction are not provided. However, you should use caution in providing information on plant or animal pathogens, toxins, hazardous chemicals, or radioisotopes that might have potential use in weapons of mass destruction. These should be discussed in general terms without providing critical details that would provide insight to bioterrorists.

- **Public Document - unless otherwise indicated, you should assume that all of the information given in the AD-421 will be made public.** Avoid technical or other terminology that might not be easily understood by our customers, stakeholders, and interested members of the general public. Do not use acronyms unless you have spelled it out the first time it is used.